

1 28. A data conversion apparatus for use in a data communication system which achieves
2 pseudo interactive communications by using one-way communications from the data
3 transmitting apparatus to a plurality of data receiving apparatuses, the data conversion apparatus
4 comprising:

5 document storing means storing a plurality of documents each of which includes one or
6 more character strings at least one of which contains a piece of link destination
7 information specifying another document as a link destination;

8 display image element generating means for reading the character strings one at a time
9 from the document storing means and converting each read character string into a
10 display image element being a bit-mapped graphic;

11 display image generating means for generating a display image which is composed of
12 generated display image elements and is to be displayed on the plurality of data
13 receiving apparatuses as one screen; and

14 display link destination information converting means for converting each piece of link
15 destination information into a piece of display link destination information which
16 specifies, as a link destination, another display image which is a display image of
17 the other document generated by the display image generating means.

1 29. A data conversion apparatus for use in a data communication system which achieves
2 pseudo interactive communications by using one-way communications from the data
3 transmitting apparatus to a plurality of data receiving apparatuses, the data conversion apparatus
4 comprising:

5 document storing means storing a plurality of documents each of which includes one or
6 more character strings at least one of which contains a piece of link destination
7 information specifying another document as a link destination;
8 display image element generating means for reading the character strings one at a time
9 from the document storing means and converting each read character into a display
10 image element being a bit-mapped graphic;
11 display image generating means for generating a display image which is composed of
12 generated display image elements and is to be displayed on the plurality of data
13 receiving apparatuses as one screen; and
14 identifier adding means for adding an identifier for cursor control to each generated
15 display image element in the display image in accordance with display position of
16 each display image element.

1 30. The data conversion apparatus of Claim 29, wherein
2 the identifier is a number.

1 31. A data conversion apparatus for use in a data communication system which achieves
2 pseudo interactive communications by using one-way communications from the data
3 transmitting apparatus to a plurality of data receiving apparatuses, the data conversion apparatus
4 comprising:

5 document storing means storing a plurality of documents each of which includes one or
6 more character strings at least one of which contains a piece of link destination
7 information specifying another document as a link destination;

8 display image element generating means for reading the character strings one at a time
9 from the document storing means and converting each read character string into a
10 display image element being a bit-mapped graphic;

11 display image generating means for generating a display image which is composed of
12 display image elements of a same category and is to be displayed on the plurality of
13 data receiving apparatuses as one screen; and

14 display link destination information converting means for converting each piece of link
15 destination information into a piece of display link destination information which
16 specifies, as a link destination, another display image which is a display image of
17 the other document generated by the display image generating means.

1 32. The data conversion apparatus of Claim 31, wherein
2 the document is written in HTML and
3 the display image generating means determines categories of the display image elements
4 from tags written in the document.

33.

The data conversion apparatus of Claim 32 further comprising:

supplementary design storing means storing supplementary designs with serial numbers;

and

supplementary design adding means for reading the supplementary designs from the

supplementary design storing means one by one in order, and adding each read

supplementary design to each piece of link destination information specifying the

other document as the link destination, on a one-to-one basis, wherein

the display link destination information converting means converts each piece of link

destination information into a piece of display link destination information

corresponding to a serial number assigned to a supplementary design,

the supplementary design storing means includes:

a maximum number storing unit for storing a maximum number of the supplementary

designs in the display image, wherein

the display image generating means further includes:

a maximum number judging unit for judging whether the number of the supplementary

designs to be arranged in the display image exceeds the maximum number; and

a display image dividing unit for, when the maximum number judging unit judges that

the number of the supplementary designs exceeds the maximum number, sending

an instruction to the display image generating means to divide the display image

into the plurality of display sub-images so that supplementary designs less than the

maximum number are added to each of the plurality of display sub-images divided

from the display image, wherein the display image generating unit generates the

plurality of display sub-images according to the instruction.

1 34. A data receiving apparatus for achieving a pseudo interactive communication by
2 receiving one-way communications from a data transmitting apparatus, the data receiving
3 apparatus comprising:

4 display means for displaying a display image which is composed of one or more display
5 image elements which are each a bit-mapped graphic generated from a character
6 string which is included in a document and contains a piece of link destination
7 information specifying another document as a link destination;

8 storage means for storing information showing positions of the one or more display
9 image elements displayed by the display means;

10 focus means for focusing on one of the one or more display image elements displayed by
11 the display means;

12 reception means for receiving an operation signal of a move button on a remote control;
13 and

14 focus control means for controlling the focus and allowing another display image element
15 to be focused on in accordance with the received operation signal by referring to
16 the position information stored in the storage means.